

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

1-39. (Canceled)

40. (Currently amended) A node for use in a wireless network comprising:

~~a transceiver; and~~

a control to operate the node in an active state and a low power state, the node in a low power state waking at a timed interval to receive a particular type of packet that is broadcast periodically in a broadcast packet time slot, the node being responsive to the particular type of packet to switch to the active state, where:

if the node does not receive a message within a second timed interval, the node switches from the active state to the low power state; and

if the node receives a message within the second timed interval, the node remains in the active state for at least a third timed interval different from the second timed interval.

41. (Previously presented) A node for use in a wireless network as recited in claim 40, where the particular type of packet comprises a polling message.

42. (Previously presented) A method for operating a node in a wireless network comprising:

waking a node in a low power state at regular intervals, where the regular interval is a multiple of a period at which a polling message is broadcast;

receiving at a waken node a message of a particular type that is broadcast periodically in a broadcast message time slot;

synchronizing the node to the received broadcast message; and

switching the node to an active state in response to the received broadcast message.

43-45. (Canceled)

46. (Currently amended) The ~~method~~-node of claim 40, wherein expiration of the second timed interval is indicated by expiration of a timer set in accordance with a maximum time for which the node is to remain awake waiting for a message addressed to the node.

47. (Currently amended) The ~~method~~-node of claim 40, wherein the third timed interval is greater than the second timed interval.

48. (Currently amended) A node for use in a wireless network comprising:

~~a transceiver; and~~

a control to operate the node in an active state and a low power state, the node in a low power state waking at a timed interval to receive a particular type of packet that is broadcast periodically in a broadcast packet time slot, the node being responsive to the particular type of packet to switch to the active state, where:

if the node does not receive a message within a second timed interval, the node switches from the active state to the low power state; and

if the node receives a message that is not addressed to the node within the second timed interval, the node remains in the active state for at least a third timed interval different from the second timed interval.

49. (Previously presented) The method of claim 42, wherein the message of a particular type comprises a polling message that is addressed to the node.

50. (Previously presented) The method of claim 42, wherein the message of a particular type comprises a polling message that is not addressed to the node.

51. (Previously presented) The method of claim 42, wherein the message of a particular type comprises information indicating whether the node has a message pending.

52-54. (Canceled)

55. (Currently amended) A method for operating a node in a wireless network comprising:
waking a node in a low power state at regular intervals;

receiving at the waken node a message of a particular type that is transmitted periodically;

synchronizing the node to the received message; and

switching operation of the node to an active state in response to the received message,

where the regular interval is a multiple of a ~~the~~ period at which the particular type of message is transmitted periodically.

56. (Currently amended) ~~An electrical circuit~~ A system for utilization in a node of a wireless communication network, the ~~electrical circuit~~ system comprising:

at least one circuit that ~~operates~~ is operable to, at least:

wake a node in a low-power state at regular intervals;

receive at the waken node a message of a particular type that is transmitted periodically;

synchronize the node to the received message; and

switch operation of the node to an active state in response to the received message,

where the regular interval is a multiple of a ~~a~~ the period at which the particular type of message is transmitted periodically.

57. (New) The system of claim 56, wherein the at least one circuit is operable to utilize a spread spectrum receiver to receive said message of a particular type.

58. (New) The system of claim 56, the wireless communication network having a plurality of base stations, each of which corresponds to a respective coverage area, wherein:

the at least one circuit is operable to receive said message of a particular type transmitted from a base station of the plurality of base stations.

59. (New) The system of claim 56, wherein the at least one circuit is operable to activate a receiver to receive said message of a particular type for up to a maximum listening period, where

the maximum listening period is at least a maximum expected time interval between consecutive transmissions of messages of the particular type.

60. (New) The system of claim 56, wherein the at least one circuit is operable to determine whether to consider said received message based, at least in part, on signal strength.

61. (New) The system of claim 56, wherein the node comprises a hand-held terminal.

62. (New) The system of claim 56, wherein the at least one circuit is operable to perform batch file transfer.

63. (New) The system of claim 56, wherein the at least one circuit is operable to perform on-line data entry.

64. (New) The system of claim 56, wherein the at least one circuit is operable to calculate an expected time for transmission of said message of a particular type.

65. (New) The system of claim 56, wherein the at least one circuit is operable to calculate an expected time for transmission of said message of a particular type based, at least in part, on timing information received in a previously received message of the particular type.

66. (New) The system of claim 56, wherein the at least one circuit is operable to calculate an expected time for transmission of said message of a particular type based, at least in part, on seed information received in a previously received message of the particular type.

67. (New) The system of claim 56, wherein the at least one circuit is operable to calculate when to wake the node.

68. (New) The system of claim 56, wherein the at least one circuit is operable to calculate when to wake the node based, at least in part, on a seed value.

69. (New) The system of claim 56, wherein the at least one circuit is operable to calculate when to wake the node based, at least in part, on a seed value received from a node of the wireless communication network.

70. (New) The system of claim 56, wherein the at least one circuit is operable to calculate when to wake the node based, at least in part, on a pseudo-random number.

71. (New) The system of claim 56, wherein the at least one circuit is operable to calculate when to wake the node based, at least in part, on a pseudo-random number associated with a previously received message of the particular type.

72. (New) The system of claim 56, wherein the at least one circuit is operable to calculate when to wake the node based, at least in part, on node identification information.

73. (New) The system of claim 56, wherein the at least one circuit is operable to calculate when to wake the node based, at least in part, on node identification information associated with a node transmitting said message of a particular type.

74. (New) The system of claim 56, wherein the at least one circuit is operable to calculate when to wake the node based, at least in part, on node identification information and a pseudo-random number.

75. (New) The system of claim 56, wherein the at least one circuit is operable to wake the node by, at least in part, operating to power up receiver circuitry of the node.

76. (New) The system of claim 56, wherein the at least one circuit is operable to determine a sleep time period based, at least in part, on an expected duration of a communication between another node and a base station of the wireless communication network.

77. (New) The system of claim 56, wherein the at least one circuit is operable to determine a sleep time period based, at least in part, on message length information communicated between another node and a base station of the wireless communication network.

78. (New) The system of claim 56, wherein the at least one circuit is operable to determine a sleep time period based, at least in part, on message length information transmitted by another node.

79. (New) The system of claim 56, wherein said message of a particular type comprises information of messages stored for a plurality of sleeping nodes.

80. (New) The system of claim 56, wherein said message of a particular type comprises information indicating whether a message awaits delivery to the node.

81. (New) The system of claim 56, wherein said message of a particular type comprises information from which the at least one circuit is operable to determine whether a message awaits delivery to the node.

82. (New) The system of claim 56, wherein said message of a particular type comprises a pending message list.

83. (New) The system of claim 56, wherein in response to a received message of the particular type indicating that a message awaits delivery to the node, the at least one circuit is operable to utilize a transmitter of the node to transmit a message to cause delivery of one or more pending messages to the node.

84. (New) The system of claim 56, wherein said message of a particular type comprises information indicating that one or more messages are stored at a node of the wireless communication network and awaiting delivery to the node.

85. (New) The system of claim 56, wherein said message of a particular type comprises information indicating whether one or more messages are stored in a base station of the wireless communication network and awaiting delivery to the node.

86. (New) The system of claim 56, wherein the at least one circuit is operable to maintain operation of the node in an awake state if a predetermined number of expected signals from the wireless communication network are not received.

87. (New) The system of claim 56, wherein the at least one circuit is operable to determine a number of said periods in which to operate the node in a sleep mode.

88. (New) The system of claim 56, wherein said message of the particular type comprises information of mail messages awaiting delivery to the node.

89. (New) The system of claim 56, wherein the at least one circuit is operable to cause circuitry of the node to enter a sleep mode for at least a portion of an expected delay to receive a message in response to a message sent from the node.

90. (New) The system of claim 56, wherein the at least one circuit is operable to activate and deactivate particular circuitry of the node in a consistent cycle.

91. (New) The system of claim 56, wherein the at least one circuit is operable to cause circuitry of the node to operate in an awake state for a first period of time if no message is received after waking the node and for a second period of time, longer than the first period of time, if a message is received after waking the node.

92. (New) The system of claim 56, wherein the at least one circuit is operable to cause circuitry of the node to operate in an awake state in response to a user input and to continue to operate in the awake state for a fixed time period following the user input.

93. (New) The system of claim 56, wherein the at least one circuit is operable to cause circuitry of the node to operate in an awake state for at least an entire duration of a communication session with the wireless communication network.

94. (New) The system of claim 56, wherein the at least one circuit is operable to cause circuitry of the node to operate in an awake state for a fixed time period following completion of a communication session with the wireless communication network.
95. (New) The method of claim 55, wherein receiving said message of a particular type comprises receiving a spread spectrum transmission of said message.
96. (New) The method of claim 55, the wireless network having a plurality of base stations, each of which corresponds to a respective coverage area, wherein:
receiving said message of a particular type comprises receiving said message from a base station of the plurality of base stations.
97. (New) The method of claim 55, further comprising activating a receiver to receive said message of a particular type for up to a maximum listening period, where the maximum listening period is at least a maximum expected time interval between consecutive messages of the particular type.
98. (New) The method of claim 55, further comprising determining whether to consider said received message based, at least in part, on signal strength.
99. (New) The method of claim 55, wherein the node comprises a hand-held terminal.
100. (New) The method of claim 55, further comprising performing batch file transfer.
101. (New) The method of claim 55, further comprising performing on-line data entry.
102. (New) The method of claim 55, further comprising calculating an expected time for transmission of said message of a particular type.
103. (New) The method of claim 55, further comprising calculating an expected time for transmission of said message of a particular type based, at least in part, on timing information received in a previously received message of the particular type.

104. (New) The method of claim 55, further comprising calculating an expected time for transmission of said message of a particular type based, at least in part, on seed information received in a previously received message of the particular type.

105. (New) The method of claim 55, further comprising calculating when to wake the node.

106. (New) The method of claim 55, further comprising calculating when to wake the node based, at least in part, on a seed value.

107. (New) The method of claim 55, further comprising calculating when to wake the node based, at least in part, on a seed value received from a node of the wireless network.

108. (New) The method of claim 55, further comprising calculating when to wake the node based, at least in part, on a pseudo-random number.

109. (New) The method of claim 55, further comprising calculating when to wake the node based, at least in part, on a pseudo-random number associated with a previously received message of the particular type.

110. (New) The method of claim 55, further comprising calculating when to wake the node based, at least in part, on node identification information.

111. (New) The method of claim 55, further comprising calculating when to wake the node based, at least in part, on node identification information associated with a node transmitting said message of a particular type.

112. (New) The method of claim 55, further comprising calculating when to wake the node based, at least in part, on node identification information and a pseudo-random number.

113. (New) The method of claim 55, wherein waking a node comprises powering up receiver circuitry of the node.

114. (New) The method of claim 55, further comprising determining a sleep time period based, at least in part, on an expected duration of a communication between another node and a base station of the wireless network.

115. (New) The method of claim 55, further comprising determining a sleep time period based, at least in part, on message length information communicated between another node and a base station of the wireless network.

116. (New) The method of claim 55, further comprising determining a sleep time period based, at least in part, on message length information transmitted by another node.

117. (New) The method of claim 55, wherein said message of a particular type comprises information of messages stored for a plurality of sleeping nodes.

118. (New) The method of claim 55, wherein said message of a particular type comprises information indicating whether a message awaits delivery to the node.

119. (New) The method of claim 55, wherein said message of a particular type comprises information from which the node determines whether a message awaits delivery to the node.

120. (New) The method of claim 55, wherein said message of a particular type comprises a pending message list.

121. (New) The method of claim 55, further comprising in response to a received message of the particular type indicating that a message awaits delivery to the node, transmitting a message to cause delivery of one or more pending messages to the node.

122. (New) The method of claim 55, wherein said message of a particular type comprises information indicating that one or more messages are stored at a node of the wireless network and awaiting delivery to the node.

123. (New) The method of claim 55, wherein said message of a particular type comprises information indicating whether one or more messages are stored in a base station of the wireless network and awaiting delivery to the node.

124. (New) The method of claim 55, further comprising operating the node in an awake state if a predetermined number of expected signals from the wireless network are not received.

125. (New) The method of claim 55, further comprising determining a number of said periods in which to operate the node in a sleep mode.

126. (New) The method of claim 55, wherein said message of the particular type comprises information of mail messages awaiting delivery to the node.

127. (New) The method of claim 55, further comprising causing circuitry of the node to enter a sleep mode for at least a portion of an expected delay to receive a message in response to a message sent from the node.

128. (New) The method of claim 55, further comprising activating and deactivating particular circuitry of the node in a consistent cycle.

129. (New) The method of claim 55, further comprising operating circuitry of the node in an awake state for a first period of time if no message is received after waking the node and for a second period of time, longer than the first period of time, if a message is received after waking the node.

130. (New) The method of claim 55, further comprising operating circuitry of the node in an awake state in response to a user input and continuing operating circuitry of the node in the awake state for a fixed time period following the user input.

131. (New) The method of claim 55, further comprising operating circuitry of the node in an awake state for at least an entire duration of a communication session with the wireless network.

Appl. No. 10/657,785

Resp. dtd. Feb. 19, 2009

Resp. to Office action dtd. Sept. 10, 2008

132. (New) The method of claim 55, further comprising operating circuitry of the node in an awake state for a fixed time period following completion of a communication session with the wireless network.